Pack Howitzer A howitzer which can be dismantled for transportation (eg. the

105 mm L5 can be broken-down into 25 separate pieces).

Panoramic Sketch A drawing or pictorial representation of the view from an OP

(see: Observation Post). It is a means of indicating the view that can be seen from a particular OP; an aide to an Artillery commander in the indication of targets for observed fire to his subordinates; and an adjunct to a shooting map (see: Shooting

Map).

Parallelescope A long-rectangular shaped mirror, placed upon a tripod, which is

placed a few metres from the gun. Once a bearing is placed on the dial sight the layer then traverses the gun and aims his sight

onto its reflection in the mirror.

Parallelism All the guns, within a battery, in line with each other with regard

to their orientation.

Petroleum, Oils and All the necessary and relevant petrol, oils and lubricants carried

by a unit for the operation and maintenance of both its vehicles

and its guns.

Plane of Departure The vertical plane containing the line of departure of a projectile

(see: Line of Departure).

Platform (see: Gun Platform)

Point of Burst The point where the projectile bursts, if it does so before impact.

Point of Impact The point where the projectile hits an object which ends its flight.

Polar Coordinates Coordinates produced by combining direction, distance and the

vertical angle to a point.

Portable Surveillance Target

Acquisition Radar – Extended Range

Lubricants (POL)

A tactical mobile advanced alerting target sensor, with a 40 kilometre range and a 4.5 kilometre ceiling. It can distinguish

between fixed-wing and rotary wing threats.

Position and Azimuth

Determining System

Position and Azimuth Determining System (PADS) carries fixation from a survey control point to where it is needed. Subsequently, orientation can be taken from the system using a director that is laid on a mirror that forms a part of the PADS case and aligned with the axis of the gyro platform (see: *Survey*

Control Point).

compensate for local prevailing non-standard conditions to a target's map data. The process of determining and applying

such corrections is called 'prediction'.

Predicted Fire The data supplied to the gun for it to fire on. It takes into account

the necessary corrections for the prevailing meteorological conditions, difference in altitude (between the target and the gun), charge temperature, time of flight, drift, muzzle velocity,

and rotation of the earth.

Predicted Horizontal Range

The predicted range to a target by adding the projectile correction factor to the standard predicted horizontal range; this is the range needed to hit the target (on the same horizontal plane) with the ammunition currently in use under the prevailing conditions (see: *Projectile Correction*).

Predicted Line

The bearing to hit the target, under the prevailing conditions, with the projectile in use. It is found by adding corrections for drift.

Predicted Range

The range required to hit a target, under the prevailing conditions, that is on a higher, or lower, horizontal plane to the gun. It is found by adding the non-rigidity correction to the predicted horizontal range (see: *Non-rigidity*).

Premature

A projectile which detonates before reaching its target. There are three types of premature:

- * Bore Premature: Where the projectile detonates within the (barrel's) bore.
- * Muzzle Premature: Where the projectile detonates within 100 metres of the gun's muzzle.
- * Inflight Premature: Where the projectile detonates somewhere along its trajectory, but prior to arriving at the target.

Preparatory Fire

Intense pre-arranged artillery fire delivered in accordance with a time schedule and in support of an attack, for the purpose of disrupting the enemy's communications, disorganizing its defences and neutralizing its fire support means. Preparation fire may start prior to, at, or after H-hour and continue until it is lifted either on a pre-arranged time schedule, or on request from the assault forces.

Prepare to Move

The order for the relevant preparations to be made to leave the current position. The guns remain in action (ie. ready to fire any missions that may be ordered) until the order 'Cease Firing' is given by the GPO (see: Cease Firing).

Primary Arc

The main arc of fire for a fire unit.

Primer

The piece at the base of a cartridge case (or within the breech block for separated ammunition) which, when struck by a firing pin, ignites the ammunition's propelling charge (see: *Separated Ammunition*).

Probable Error

The error, or standard deviation, which produces a dispersion pattern of the projectile at the target (when firing on the same data) in range, line, height of burst, time to burst and/or range to burst. It is estimated that at least 50 percent of the fired rounds are likely to fall onto the target (see: *Zone*).

Projectile

The piece of ammunition consisting of a shell and fuze. When fired from the gun, by the applied exterior force of the propellant, it continues in motion by virtue of its inertia (see: *Round* and *Shell*).

Projectile Correction

The correction that takes into account allowances for any differences between the projectile to be fired and the standard projectile. This includes corrections for non-standard weight and the fuze (see: *Predicted Horizontal Range*).

Proof

(see: Proof and Experimental Establishment)

Pronto

The radio appointment title for a signaller (eg. the battery signal sergeant).

Proof and Experimental Establishment

The testing of guns, by firing, before they are accepted into service, is conducted at the Proof and Experimental Establishment (P&EE). The Unit establishes whether the relevant guns are safe to be fired under set-down Service conditions and can operate within the required specifications. All barrels, breeches, buffers and recuperators, and, in some cases, complete guns are test fired.

The Unit also tests, by firing, samples of ammunition before they are accepted into service. Projectiles, fuzes and cartridges are tested at various stages of manufacture to ensure that they function both correctly and safely.

Propellant

A relatively slow burning low explosive that, when fired, turns into a propellant gas which then propels the projectile up and out-of the gun's barrel (see: *Charge* and *Firing Pin*).

Proximity Fuze

A fuze designed to cause a high explosive projectile to detonate in the air (above a target) (see: *Fuze*).